

REMARKS

Rejection Under 35 U.S.C. §103(a) over Dufour et al. in view of Rebel et al.

Claims 1, 9, 14-16, and 19 were rejected as obvious over the Dufour patent, U.S. Patent 5,603,263, in view of the Rebel patent, U.S. Patent 4,480,548. Applicant respectfully traverses the rejection and requests reconsideration of the claims.

The Dufour patent describes a scraper blade for removing excess ink from non-printing areas of an ink roller. The ink scraped from the roller is collected and recirculated to the ink fountain. The scraper blade is mounted on a collection or catch tray to collect the scraped ink. Alternatively, the scraper is directly above the ink fountain, and the scraped ink is returned directly to the ink fountain. Col. 5, lines 17-20. It is undesirable for any of the scraped ink or water to get into the roller train. Col. 4, lines 34-37.

As the Examiner correctly notes, the Dufour patent does not teach any aspects of Applicant's invention except those that are a part of lithographic printing processes generally, namely having adjacent ink rollers having non-print areas at the ends. The Dufour patent does not disclose delivering a solvent to an ink roller, does not disclose delivering solvent to non-print areas of the ink roller, does not disclose delivering a tack-reducing solvent to those areas, does not disclose transfer of the solvent to successive adjacent ink rollers, and does not disclose delivering the solvent at a rate to prevent increase in ink tack in the non-print areas.

The Dufour patent appears to be cited primarily for its disclosure in column 1 that ink builds up in non-print areas of an ink roller. In the first paragraph of the Prior Art section in that column, the patent mentions damage to the rollers and deterioration

of print quality can result. The Dufour patent describes prior art ink stripping wheels as being complicated in design and subject to failing at high press speeds. The Dufour patent proposes replacing the stripping wheel with a scraper blade, simpler in design and conducive to recycling the ink.

The Rebel patent is not concerned with ink roller, but instead describes a method of applying a varnish or lacquer, not ink, using the dampener rollers of a dampening unit at a time when printing with ink is not carried out. The Rebel patent is not concerned with increase in ink tack – ink is not used in the Rebel dampening unit or in the Rebel coating process – but is rather concerned with drying of the varnish.

It is not true that the Rebel patent teaches delivering tack reducing solvent. The Rebel patent does not appear to mention tack. It is not true that the Rebel patent teaches delivering solvent to an ink roller. The Rebel patent is concerned only with dampener rollers. It is not true that the Rebel patent teaches preventing an increase in ink tack. The Rebel patent doesn't teach anything about increase in tack or concern itself in any way with ink. The Rebel patent doesn't mention adjacent ink rollers.

What the Rebel patent does teach, in column 1, lines 15-22, is

... A problem with *varnishing* systems, more particularly in the case of small formats, is to keep the varnish away from the edge zones, for varnish, unlike dampening agents, *hardens*. Another problem arising in varnishing is that the varnish *dries* on the rollers during an interruption in printing.

The conventional remedy in both cases is to *wash off* dried-on varnish manually before starting printing.

(Emphasis added.) The Rebel patent doesn't speak of tackiness or ink build up, or the problems of web breakage in a web-fed press or sheet jamming in a sheet-fed press that Applicant sought to solve.

The Federal Circuit has warned that when an invention is less technologically complex, "the very ease with which the invention can be understood may prompt one 'to fall victim to the insidious effect of a hindsight syndrome wherein that which only the inventor taught is used against its teacher.'" *Ruiz v. A.B. Chance Co.*, 57 U.S.P.Q.2d 1161, 1166. Certainly, neither of the cited references mentions the problem of ink becoming tacky and tearing the web or jamming paper sheets. Commercial presses before the present invention used the gelled grease ("open pocket compound") described in the present Background on page 3 and compared as Comparative Example B to the present invention. The Office Action proposes that it would be obvious to use the dampening agent of Rebel to, as Applicant teaches, reduce tack of ink, even though neither reference mentions tack or problems with tacky ink. The suggestion comes only from Applicant, applied with hindsight.

Additionally, "secondary considerations, when present, must be considered in determining obviousness." *Ruiz* at 1169. Among those considerations are long-felt but unresolved need and unexpected results. *Graham v. John Deere Co.*, 383 U.S. 1, 18.

A prima facie case of obviousness cannot be supported if a modification of the teachings necessary to support the rejection destroys the function of the reference. *In re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984). The Examiner proposes a combination with the Rebel reference that eradicates the Dufour scraper blade, eradicates the removal of ink, and eradicates the collection and recirculation of the removed ink. What motivation is there in the Dufour patent to "modify" its system by

throwing out its whole apparatus and method? There is none, and the Examiner has pointed out none.

The Rebel patent states that its varnish "hardens." Col. 1, lines 17-18. There is no mention or suggestion of tack, tackiness, or tack-reducing solvent.

For obviousness, the references must objectively point to the combination. The references must not only suggest that such a change is possible, but must also suggest that such a change would be desirable. There is nothing in these references that would motivate the skilled artisan to make such complete changes without the benefit of hindsight. The Dufour patent, which describes removing ink via the prior art ink stripping wheels or its invention of a scraper blade, where the ink can be recycled, provides no suggestion of modifying its process or apparatus in a way that would lead to Applicant's invention.

Just as importantly, neither the Dufour patent nor the Rebel patent provides any inkling of the unexpected benefits that flow from the invention. The closest prior art remains the use of "open pocket compound" described in the present specification on page 3. This method is believed to be the most widely used method to control the problem on commercial presses. The present invention offers unexpected benefits compared to the open pocket compound method. These benefits include a *ten-fold decrease* in down time while printing at a rate of more than a half-million impressions per 24 hours as compared to printing for the same time at the same rate but without the invention (Comparative Example A) or printing using the conventional open pocket compound (Comparative Example B), blanket usage cut in half, and extension of printing plate life. The improvement in down time with the invention is even more

impressive considering that the comparison prior art example used more expensive and stronger coated paper rather than super calendered paper. Objective evidence may be used to show nonobviousness. *Graham v. John Deere Co.*, 383 U.S. 1.

For these reasons, Applicant submits that the claims are patentable over the cited references. Accordingly, Applicant respectfully requests withdrawal of the rejection and reconsideration of the claims.

Rejection Under 35 U.S.C. §103(a) over Dufour et al. in view of Rebel et al. and Switall

Claims 2, 6, 17, and 18 were rejected as obvious over the Dufour patent, U.S. Patent 5,603,263, in view of the Rebel patent, U.S. Patent 4,480,548 and the Switall patent, U.S. Patent No. 3,508,711. Applicant respectfully traverses the rejection and requests reconsideration.

The claims are patentable over Dufour et al. in view of Rebel et al., as described in detail above. For claims 2, 6, 17, and 18 to be unpatentable over these patents in combination with the Switall patent, the Switall patent must suggest all that is lacking from the first two references. The Switall patent discloses a fluid dispensing system for spraying cleaning solvent onto blanket cylinders, col. 1, lines 41-43. The Switall method is for cleaning off the blanket cylinder along its whole length. Col.. 3, lines 34-43 and FIG. 1.

The Office Action cites the Switall reference for its disclosure of pump (36) for pumping solvent from a reservoir. The Switall reference, however, delivers the solvent to spraying units that spray cleaning solvent along the length of the blanket. The Switall reference does not disclose the method steps and apparatus features absent

from the Dufour and Rebel patents. Thus, claims 1 and 14, and each of their dependent claims including claims 2, 6, 17, and 18, are patentable over the combination of the Dufour, Rebel, and Switall patents.

For these reasons, Applicant submits that the claims are patentable over the cited references. Accordingly, Applicant respectfully requests withdrawal of the rejection and reconsideration of the claims.

Rejection Under 35 U.S.C. §103(a) over Dufour et al. in view of Rebel et al. and Huebner

Claim 3 was rejected as obvious over the Dufour patent, U.S. Patent 5,603,263, in view of the Rebel patent, U.S. Patent 4,480,548 and the Huebner patent, U.S. Patent No. 3,139,028. Applicant respectfully traverses the rejection and requests reconsideration.

Again, the claims are patentable over Dufour et al. in view of Rebel et al., as described in detail above, and the Huebner patent does not provide the motivation or the teachings absent in the first two references.

The Office Action proposes that the Huebner patent teaches adjusting the rate of Applicant's step (b) to the printing rate, but it is respectfully submitted that this is not the case. The Huebner patent concerns misting printing plates, see Title, not supplying tack-reducing solvent, or anything else, to non-print areas of an ink roller. The mist of the Huebner method is dampening moisture that serves as fountain solution – that is, it wets out nonprint areas of the plate to repel the ink. Col. 1, lines 13-16 & 26-30. The Huebner mist, therefore, cannot be a tack-reducing solvent for the ink as it must repel the ink. Further, the Huebner dampening moisture is directed to a

whole different purpose that cannot say anything about the desirability of treating non-print areas of ink rollers.

For these reasons, Applicant submits that claim 3 is patentable over the cited references. Accordingly, Applicant respectfully requests withdrawal of the rejection and reconsideration of claim 3 and all of the claims.

Rejection Under 35 U.S.C. §103(a) over Dufour et al. in view of Rebel et al., Switall, and Takekoshi

Claim 4 was rejected as obvious over the Dufour patent, U.S. Patent 5,603,263, in view of the Rebel patent, U.S. Patent 4,480,548, the Switall patent, U.S. Patent No. 3,508,711, and the Takekoshi patent, U.S. Patent No. 5,181,467. Applicant respectfully traverses the rejection and requests reconsideration.

The combination of the Dufour, Rebel, and Switall patents fail to suggest the subject matter of claim 4 for the reasons discussed above with respect to claim 2, from which claim 4 depends. The Takekoshi patent, does not provide the motivation, expectation of results, or teachings of the aspects of the present invention that are lacking in the first three patents, even if its automatic dampening water replenisher suggested what the Office Action asserts it suggests.

For this reason, Applicant submits that claim 4 is patentable over the cited references. Accordingly, Applicant respectfully requests withdrawal of the rejection and reconsideration of claim 4 and all of the claims.

Rejection Under 35 U.S.C. §103(a) over Dufour et al. in view of Rebel et al. and Stein

Claims 5 and 7 were rejected as obvious over the Dufour patent, U.S. Patent 5,603,263, in view of the Rebel patent, U.S. Patent 4,480,548 and the Stein patent, U.S. Patent No. 5,699,735. Applicant respectfully traverses the rejection and requests reconsideration.

The claims are patentable over Dufour et al. in view of Rebel et al., as described in detail above. The use of narrower or wider webs in printing is irrelevant to the underlying issues left unaddressed by the Dufour and Rebel patents. Accordingly, adding a reference that merely teaches replacing a web with one that is narrower fails to suggest the present invention as a whole. Accordingly, Applicant respectfully requests withdrawal of the rejection and reconsideration of the claims.

Rejection Under 35 U.S.C. §103(a) over Dufour et al. in view of Rebel et al. and Blim

Claim 8 was rejected as obvious over the Dufour patent, U.S. Patent 5,603,263, in view of the Rebel patent, U.S. Patent 4,480,548 and the Blim patent, U.S. Patent No. 5,503,069. Applicant respectfully traverses the rejection and requests reconsideration.

The claims are patentable over Dufour et al. in view of Rebel et al., as described in detail above. The Blim patent describes spraying all along a print cylinder to prevent a fast drying ink that remains on it after printing from drying. There is no mention of any motivation to use a tack-reducing solvent only on non-print areas of an ink roller, of transfer from one ink roller to another, or any motivation to combine the Blim and other references. Further, the Blim patent is directed to solving a

different problem, uptake of ink in the printing area by dried ink, that is just not relevant here.

For these reasons, Applicant submits that claim 8 is patentable over the cited references. Accordingly, Applicant respectfully requests withdrawal of the rejection and reconsideration of claim 8 and all of the claims.

Rejection Under 35 U.S.C. §103(a) over Dufour et al. in view of Rebel et al. and De Marchi et al.

Claim 10 was rejected as obvious over the Dufour patent, U.S. Patent 5,603,263, in view of the Rebel patent, U.S. Patent 4,480,548 and the De Marchi patent, U.S. Patent No. 2,972,298. Applicant respectfully traverses the rejection and requests reconsideration.

The claims are patentable over Dufour et al. in view of Rebel et al., as described in detail above. While it is true that super calendered paper exists, this is not enough to make the present invention obvious. Super calendered paper is cheaper than coated paper and provides a reasonably good substitute, but super calendered paper is not as strong as coated paper. For this reason, as illustrated by Comparative Example A, commercial printers have opted to use the more expensive coated paper to avoid the even more expensive down time they experience when the super calendered paper web breaks more often. At a rate of 0.56 million impressions per 24 hours, or about 389 impressions every minute, the down time of 38.5 minutes in Comparative Example A meant a loss of nearly 15,000 impressions. The down time of the invention in Example 1 of 3.6 minutes per million impressions meant a loss of only about 1400 impressions, and that was for the cheaper, super calendered

paper. It wouldn't be obvious to use super calendered paper if it meant losing 15,000 impressions for every million printed, and there would be no way to predict from the references that this could have been avoided in any way.

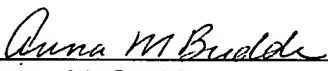
For these reasons, Applicant submits that claim 10 is patentable over the cited references. Accordingly, Applicant respectfully requests withdrawal of the rejection and reconsideration of claim 10 and all of the claims.

Conclusion

Applicant believes that all ground for objection and rejection have been met or overcome, and that the claims are in condition for allowance. Applicant respectfully requests reconsideration of all pending claims in view of the amendments and arguments made. An early allowance of the application is earnestly requested.

The Examiner is invited to telephone if it would be helpful to resolving any issue that might remain.

Respectfully submitted,



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